CSO
Actionable Evidence

COMMUNITY VOICES ON CLIMATE, PEACE AND SECURITY: A SOCIAL LEARNING APPROACH

CGIAR Climate security observatory

METHODS PAPERS SERIES
03/2023

CGIAR FOCUS Climate Security

CGIAR INITIATIVE ON Climate Resilience

CSO
Actionable Evidence

PURPOSE

The linkages between climate change and human insecurity have been the subject of considerable debate over the past decade. Critical voices argue that methods for studying these complex interrelations have often ignored local cultural realities, leading to decontextualized constructions of system dynamics. Resulting policy and programming have prioritized technocratic solutions and top-down governance arrangements. Guided by a combination of social learning theory and intersectional social equity frameworks, this study examines the everyday experiences of members of affected communities to elucidate how climate change and human insecurity impact local contexts. The study developed and is currently testing a rapid assessment method, based on participatory appraisal traditions, to engage community voices in understanding climate-related security risks, including efforts to maintain social cohesion while confronting disruptions to livelihoods, food security, and inter/intra-community relations. Data are gathered in facilitated processes of co-inquiry, through community-based dialogue, in five countries with a total of twelve case study locations. Preliminary results indicate that pedagogical tools for collective reflection can support jointly-articulated visions of human security and climate vulnerability. These findings can foster collective action for natural resource management and climate adaptation, and guide the programming of environmental peacebuilding strategies based on local belief systems and adaptive capacities.

Objectives

- To design and test a Social Learning method meant to engage local voices in understanding the climate security (CS) nexus under a diversity of contexts.
- To explore current and past community responses towards coping and adapting to risks.
- To develop bottom-up resilience-building solutions based con collective action that enhance a sustainable peace.

CSO
Actionable Evidence

INTRODUCTION

Academic literature on the climate security nexus and environmental peacebuilding tends to center on arguments around the causal pathways of conflict, such as natural resource scarcity versus abundance, or greed versus grievance explanations. This often ignores structural and cultural realities on the ground and leads to technocratic perspectives of system dynamics and prescriptions for action that overly focus on high-level governance arrangements and public security strategies, rather than human security es experienced in everyday life. In fact, Ide et al. (2021) argue that dependence on EP interventions on external stakeholders, such as international peacebuilders and state institutions, jeopardizes the legitimacy of projects towards local cultural particularities and power relations, implicitly "depoliticizing" peacebuilding. This indicates a need for conflict-sensitive interventions which adopt frameworks and approaches accounting for people's conceptualization of social-ecological systems and self-articulated visions of resilience and security, in a manner capable of contributing to stability by addressing struggles for access, distribution, and representation (Temper et al., 2018).

The climate security (Mach et al., 2020) and environmental peacebuilding (Ide et al., 2021) literatures report the need to systematically explore potential responses to CS risks from a bottom-up perspective. I do not refer here to bottom-up as the collection of narrative experiences from community members to be subsequently analyzed by experts, hence implying that those affected by conflict, often the most marginal, are incapable of making sense of their own reality (Ware & Laoutides, 2021). Rather, the approach proposed here intends to facilitate the conceptualization of climate security risks through joint critical reflection with affected populations themselves. The approach means to augment and integrate with, existing approaches informing participatory climate vulnerability and conflict assessments.

It also intends to recognize the environment as a site of political contestation that transforms natural resources into entitlements and shapes the degree of individual and collective agency for resilience building (Mcallister & Wright, 2019). In this sense, it is not enough for research to engage with a view of climate security as a manifestation of societal instability from greed and grievance mechanisms that are triggered by increasingly scarce natural resources. Rather, research strategies should be complemented with an exploration of the power-driven structures that sustain underlying sources of vulnerability and social division within changing social-ecological conditions. This lens of inquiry can, in turn, guide the exploration of the way in which social relations can be transformed through collective environmental management, and the implications of this for peacebuilding strategies.

To address this gap, the present study will conduct a participatory assessment of climate security risks and adaptation strategies as conceived from a local perspective. This process of engagement will examine the way local actors capitalize on practical experience to conceptualize social-ecological contexts; elucidate and develop their cognitive understanding of the environmental- and conflict-related collective problems they face; adjust their action strategies in addressing such problems; and challenge institutional structures that sustain the underlying causes of vulnerability. Social learning theory, as derived from its critical pedagogy tradition (Freire, 1970; Maturana & Dávila, 2006), will be adopted as a framework to design a facilitated process of co-inquiry at the community level. The methodology is intended to support the participatory assessment of climate security risks as well as identify what kinds of coping strategies are and could be adopted at the community level. Measures will be proposed for enhancing adaptive capacities that relate to people´s everyday experiences of insecurity and vulnerability.

The root causes of vulnerability are understood to be of socioeconomic, political, ethnic, gendered, and environmental nature, and hence manifest in unique ways for different social groups, households, and individuals. By tailoring the method for specific social groups, this approach will allow showcasing gendered and intersectional vulnerabilities (e.g. Chandra et al., 2017). The tools that follow are meant to understand how perceptions around and responses to climate security risks differ between populations, mainly by accounting for indigenous peoples and gender divides. The pedagogical methods applied in this research will also contribute towards raising community and indigenous peoples´ voices in integrating local-level perceptions in climate security programming for resilience building.

THEORETICAL FRAMEWORKS

Climate security

A recent review of the climate security literature (Buhaug & von Uexkull, 2021) proposed to conceptualize the link between climate-related impacts and conflict by accounting for three well-established fields of scientific inquiry: the determinants of social vulnerability to climate change and variability; the climatic drivers of conflict risk; and the societal and environmental impacts of violent conflict. Under this framework (Fig. 1), socioeconomic vulnerability influences risk and impacts from climatic change, these impacts in turn enhance the risk of armed conflict, and the consequences of armed conflict increase vulnerability to future climate hazards; hence potentially trapping a society in a "vicious circle" of conflict that is also influenced by institutional responses at multiple levels and throughout a diversity of policy sectors.

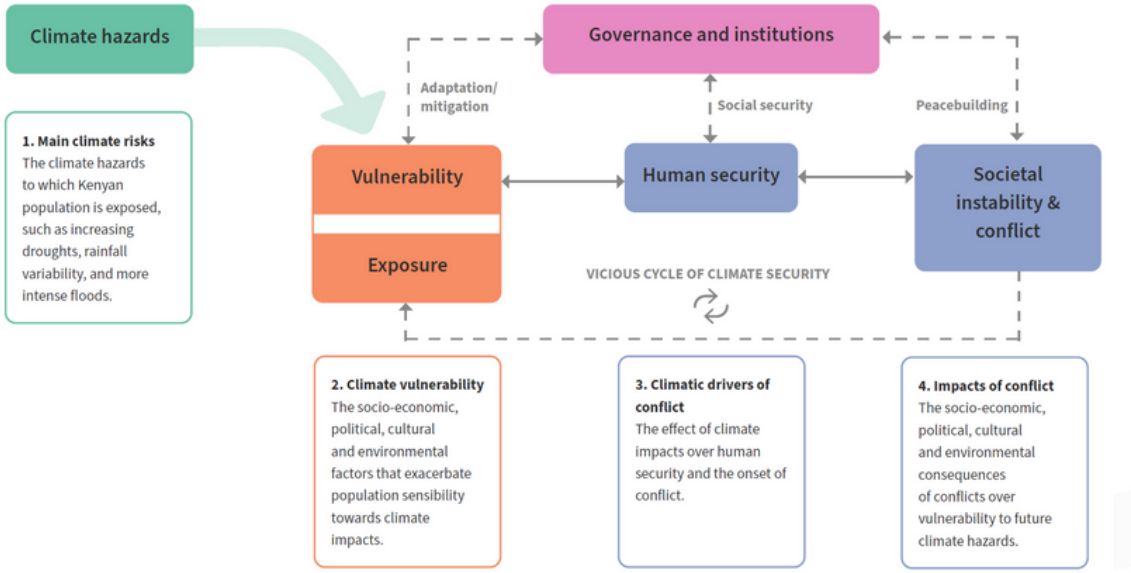

FIGURE 1. CLIMATE SECURITY FRAMEWORK SHOWING THE VICIOUS CYCLE BETWEEN VULNERABILITY AND CONFLICT.

Social learning

Social learning has long been recognized as a potential mechanism for effective natural resource management through collaborative decision-making approaches (Muro & Jeffrey, 2008). Frequently conceptualized through Reed´s et al. (2010) definition as 'a change in understanding that goes beyond the individual to become situated within wider social units or communities of practice through social interactions between actors within social networks', social learning theory builds upon action research on natural resource management to address highly complex and interconnected policy problems embedded in social-ecological systems, such as climate security.

Social learning approaches can reposition community members, such as farmers or cattle herders, as citizens scientists, and experts on the intersectional vulnerabilities that afflict their experienced environment. Since it is affected populations themselves that know most about their social-ecological and conflict-related threats, they are advantageously positioned to develop action plans towards effectively addressing them. However, "unless people believe that they can produce desired effects and forestall undesired ones by their actions, they have little incentive to act" (Bandura, 2000, 75). Transformations towards more equitable and sustainable food production systems, hence, require shared perceptions around social-ecological problems, a collective desire for change, and the widespread belief that change is possible through collaboration (Stirling, 2014).

Under this view, a critical reflection that builds upon present knowledge and experience is capable of triggering creative processes of change through collective action and agency-building, which lead in turn to a conscious transformation of cognitive perceptions, practices, and relations. Souza et al. (2019) propose three principles for the design of transformative social learning processes, each representing a different dimension of learning (Fig. 2): reflexive interaction between people and the environment (territorial dimension); dialogic interaction in a climate of legitimate difference and acceptance (collective dimension); and recognition of ontological pluralism (individual dimension). Following this logic, while recognizing the limits of triggering social learning through a one-off assessment activity, the proposed method integrates three research phases, each with the respective goal of 1) recognizing community-level knowledge around social-ecological change; 2) defining drivers of vulnerability to climate hazards and insecurity in terms that are grounded in local experiences and traditions; and 3) explore opportunities for collective action towards resilience building that fosters everyday peace formation (Richmond, 2013).

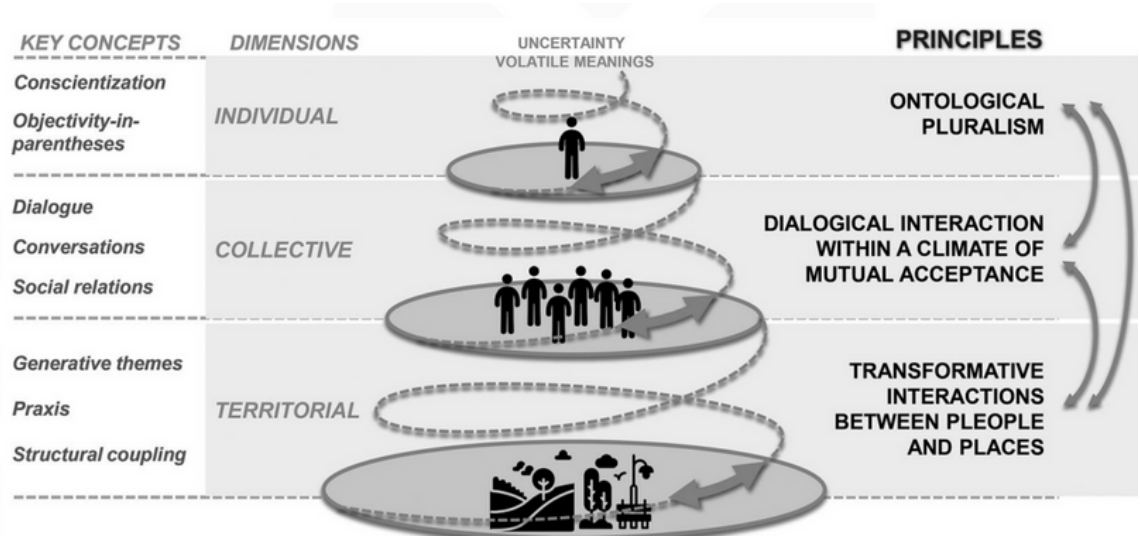

FIGURE 2. SOCIAL LEARNING FRAMEWORK GUIDING THE METHODOLOGY´S DESIGN. EXTRACTED FROM SOUZA ET AL. (2019).

METHODOLOGY

The appraisal method applied in this study expands our comprehension of climate-related security risks in different contexts. It examined the way local actors capitalize on practical experience to elucidate their understanding of the environmental- and conflict-related collective problems they face; to reflect on their action strategies in addressing such problems; and to challenge institutional structures that sustain underlying causes of vulnerability. Ongoing community-level responses are also discussed, identifying short-term coping and long-term adaptive strategies which have most successfully enhanced local capacities toward managing climate risks, along with those which are currently being overwhelmed. Community-based fieldwork was conducted in previously defined case study localities within ClimBeR partner countries.

Case study regions were determined by reviewing the results of the Climate Security Observatory´s (CSO´s) data-driven analyses, including the Climate Security pathway Analysis and the Spatial Analysis, and through engagement with national-level expert stakeholders. Key informant interviews and a multi-stakeholder workshop were conducted in each focus country to determine regions where climate-related security risks may be a matter of concern.

Data gathering process

A diversity of formerly applied participatory and art-based methods (Rüttinger et al., 2014; Ulrichs et al., 2015) were used as a base toolkit to design a participatory vulnerability assessment at the community level that explicitly integrates a climate security lens, meaning traditional methods for climate change vulnerability and conflict analysis were be intertwined. The process also means identifying and developing resilience-building solutions that contribute towards sustainable peacebuilding and formation. The assessment took place through a mixed-methods approach combining direct observation, participatory group sessions, open structured interviews, and quantitative surveys. In each of the case study sites, the total number of participants ranged between 20-28, with approximately 10-12 females and a similar (or slightly larger) number of males. Elders, adults, youth, and representatives of minority (disability) groups were present in all exercises. Each case study analysis was completed within 4 or 5 days.

The appraisal method consists of a rapid assessment integrating three phases, each with the respective goal of 1) recognizing gender-differentiated community-level knowledge around social-ecological and climate change; 2) defining drivers of vulnerability to climate hazards and security-related risks in terms that are grounded in local experiences and traditions; and 3) explore meaningful opportunities for collective action that simultaneously foster resilience and sustainable peacebuilding.

Phase	Tool	Main goal
1	Step 1: Transect Walk	Understand key social, physical and ecological traits and threats in the surrounding area.
	Step 2: Historical Timeline	Develop shared understandings on social-ecological change.
2	Step 3: Seasonal Calendar	Identify the seasonality of livelihoods, risks and security.
	Step 4: Problem Tree and Responses Tree	Determine perceived causality between direct and indirect causes of insecurity. Identify community responses to different causes.
3	Step 5: Collective action planning	Develop action plans around a limited amount of clustered issues and identify requirements of external support.
	Step 6: Method evaluation	Evaluate the emergence of social learning throughout the appraisal.

TABLE 1. FIELDWORK RESEARCH PHASES AND STEPS.

These phases were in turn conformed by six steps (see Table 1), each using different appraisal tools to facilitate a joint reflexive dialogue with community members. The first and second phases were conducted through focus group discussions (FGDs) held separately for women and men, hence allowing them to identify intersectional drivers of vulnerability and different perceptions of community-level responses to risk management strategies. Phase 3 of collective action planning was facilitated through working groups in which women and men were distributed equally. Qualitative key informant interviews and a quantitative survey were conducted to complement the analysis. The quantitative component of the study focused on intersectional vulnerabilities across gender divides and used a modified version of the "Gender Equality for Food Security" (GE4FS) survey developed by the UN Food and Agricultural Organization.

CSO
Actionable Evidence

Participatory method

Phase 1: Community knowledge recognition
Phase 1 was conducted throughout the first and second days. The main goal was to jointly develop a shared vision of what's already known and understood regarding social-ecological hazards and drivers of vulnerability, their current status, and recent developments. The phase guided community members through the analysis of the social-ecological landscape in which the community is embedded, its drivers of change, along with challenges and opportunities posed by these changes. This recognition phase was meant to elucidate system dynamics in fragile and highly vulnerable settings. It began by conducting a Transect Walk with community leaders, to gain an understanding of key social, physical, and ecological traits in the surrounding area. Transect Walk is a tool intended to make observations about the community, its history, available resources, livelihood strategies, and people´s interconnection with territorial traits, along with natural and political boundaries. The tool was useful at this stage to look for evidence of past hazards and change, along with triggering a discussion around intra- and inter-communal relations, both conflictive and cooperative.

An FDG was then conducted with community members by using the Historical Timeline as a facilitation tool. The Historical Timeline is designed to foster a collective reflection around social-ecological change as experienced since people's memories allow for and create meaning from these perceptions. The session fostered a shared understanding of a changing social-ecological system and its recent developments. Emphasis was made on investigating how conflict-related trends interact with a surrounding territory that is increasingly impacted by climate change. As part of this initial phase, the team held unstructured interviews with village leaders to understand decision-making structures within the community and their relation to formal governance institutions.

Phase 2: conceptualization of climate-related security risks

Phase 2 included the third day of assessment. Two FDGs were conducted to elaborate on a community-articulated vision of relevant climate security concepts, including vulnerability, adaptive capacity, and (in)security. This phase was designed with two goals in mind: 1) develop a more comprehensive view of the impacts of climate change on livelihoods within the community, and the multiple pathways through which climate impacts are related to conflictive or cooperative societal relations within and beyond the community, and 2) examine community-level responses to risk management and draw lessons on their functioning and maintenance.

The Seasonal Calendar tool was used to guide a discussion around livelihood strategies and how these are adjusted in relation to seasonal variability. The reflection also identified different expressions of risk emerging throughout the year, such as common periods of food insecurity, labor availability and migration, disease, natural resource scarcity, insecurity, and conflict patterns, among others. Seasonal Calendars are facilitated to explore the seasonal variation of vulnerability, potentially overlying climatic, livelihood, health, and conflict-related risks in a place-based setting. The Problem Tree technique was then implemented while focusing on selected security-related issues. The facilitation tool guided a collective reflection on direct and structural drivers of conflict and insecurity. It also allowed us to determine, and graphically represent, a simplified vision of correlational linkages between drivers, thereby supporting a conceptualization of climate-related security risks, while situating this vision within the structural factors that sustain vulnerability and antagonistic relations. Finally, a Responses Tree diagram was developed as a way of identifying ongoing community responses to different drivers.

Phase 3: collective action planning

Phase 3 involved focusing on selected key problems prioritized during the previous phases, to identify solutions for building adaptive capacity in the face of climate-related security risks. Participants were divided into gendered-mixed working groups and asked to think of solutions to address one of the prioritized problems. Solutions were then elucidated through proposed actions for their implementation. These plans were developed through a previously defined framework format, which contains goals that the group wants to achieve, required activities, assigned responsibilities to different social actors, and resources required for implementation. Teams were encouraged to integrate in their analysis the previously identified structures of potential support and those that may impair community agency. Working groups then presented their plans to each other, hence providing an opportunity for reflection around plausible implementation barriers and synergistic strategies. To finalize the assessment, the group was asked to evaluate the method. In triggering a discussion, participants were asked, through a set of yes/no questions, whether their participation in the workshop impacted their capacity to understand the effects of climate change over the community, what needs to happen for their community to adapt to climate change, and their own role in supporting the community in doing so. An open dialogue then allowed them to voice their perception of the method´s impact.

Quantitative method

The quantitative component of the study used a modified version of the "Gender Equality for Food Security" (GE4FS) measure developed by the UN Food and Agricultural Organization. The GE4FS measure is a globally applicable instrument that examines the interconnectedness of dis/empowerment and food in/security.

The GE4FS measure combines the Food Insecurity Experience Scale (FIES) (Ballard et al., 2013) and a gender equality component. The gender equality component is a set of 18 questions exploring five dimensions of personal empowerment:

1. Decision-making ability
2. Financial self-sufficiency.
3. Freedom from violence.
4. Reproductive freedom.
5. Unpaid labor.

The Food Insecurity Experience Scale (FIES) and the Gender Empowerment Questionnaire are provided in Annex 1. These instruments were translated and adjusted to reflect local circumstances. As with the qualitative component, data obtained through the application of the GE4FS will be disaggregated by gender, age/generation (the category "youth" with be self-determined) and membership in a marginalized group (also self-determined) as locally relevant. The questionnaires, modified to allow for open-ended responses, were administered by a pair (female and male) of enumerators hired in each case study, who administered it to local respondents different from those who participated in any of the other exercises.

CSO
Actionable Evidence

REFERENCES

Ballard, T.J., A.W. Kepple and C. Cafiero (2013). The Food Insecurity Experience Scale: Development of a Global Standard for Monitoring Hunger Worldwide, Food and Agriculture Organization: Rome. http://www.fao.org/in-action/voices-of-the-hungry/fies/en/

Bandura, A. (2000). Exercise of Human Agency Through Collective Efficacy. Current Directions in Psychological Science, 9(3), 75–78. https://doi.org/10.1111/1467-8721.00064

Bonatti, M. (2018). Social learning and community-based strategies to promote Sustainable Development Goals: The case of food security and climate change in rural areas [Humboldt-Universität zu Berlin]. https://doi.org/10.18452/19532

Buhaug, H., & von Uexkull, N. (2021). Annual Review of Environment and Resources Vicious Circles: Violence, Vulnerability, and Climate Change. https://doi.org/10.1146/annurev-environ-012220

Chandra, A., McNamara, K. E., Dargusch, P., Caspe, A. M., & Dalabajan, D. (2017). Gendered vulnerabilities of smallholder farmers to climate change in conflict-prone areas: A case study from Mindanao, Philippines. Journal of Rural Studies, 50, 45–59. https://doi.org/10.1016/j.jrurstud.2016.12.011

Davies, R., & Dart, J. (2005). The “Most Significant Change” (MSC) Technique: A Guide to Its Use". https://doi.org/10.13140/RG.2.1.4305.3606

Firchow, P., & Ginty, R. mac. (2017). Measuring peace: Comparability, commensurability, and complementarity using bottom-up indicators. International Studies Review, 19(1), 6–27. https://doi.org/10.1093/isr/vix001

Freire, P. (1970). Pedagogy of the oppressed. Continuum.

Gabrielsson, S., Brogaard, S., & Jerneck, A. (2013). Living without buffers-illustrating climate vulnerability in the Lake Victoria basin. Sustainability Science, 8(2), 143–157. https://doi.org/10.1007/s11625-012-0191-3

Ide, T., Bruch, C., Carius, A., Conca, K., Dabelko, G. D., Matthew, R., & Weinthal, E. (2021). The past and future(s) of environmental peacebuilding. In International Affairs (Vol. 97, Issue 1, pp. 1–16). Oxford University Press. https://doi.org/10.1093/ia/iiaa177

Ide, T., Palmer, L. R., & Barnett, J. (2021). Environmental peacebuilding from below : customary approaches in Timor-Leste. International Affairs, 1, 103–117. https://doi.org/10.1093/ia/iiaa059

Johnson, M. F., Rodríguez, L. A., & Quijano Hoyos, M. (2021). Intrastate environmental peacebuilding: A review of the literature. World Development, 137, 105150. https://doi.org/10.1016/j.worlddev.2020.105150

Mach, K. J., Adger, W. N., Buhaug, H., Burke, M., Fearon, J. D., Field, C. B., Hendrix, C. S., Kraan, C. M., Maystadt, J. F., O'Loughlin, J., Roessler, P., Scheffran, J., Schultz, K. A., & von Uexkull, N. (2020). Directions for Research on Climate and Conflict. In Earth's Future (Vol. 8, Issue 7). John Wiley and Sons Inc. https://doi.org/10.1029/2020EF001532

Maturana, H., & Dávila, X. P. (2006). Education as viewed from the biological matrix of human existence. PRELAC Journal, 2, 30–39.
Mcallister, G., & Wright, J. (2019). Agroecology as a Practice-Based Tool for Peacebuilding in Fragile Environments? Three Stories from Rural Zimbabwe. Sustainability, 11(790), 1–21. https://doi.org/10.3390/su11030790

Muro, M., & Jeffrey, P. (2008). A critical review of the theory and application of social learning in participatory natural resource management processes. Journal of Environmental Planning and Management, 51(3), 325–344. https://doi.org/10.1080/09640560801977190

Nixon, R. (2011). Slow violence and the environmentalism of the poor. Harvard University Press.

Pettersson, T., & Öberg, M. (2020). Organized violence, 1989–2019. Journal of Peace Research, 57(4), 597–613. https://doi.org/10.1177/0022343320934986

Reed, M. S., Evely, A. C., Cundill, G., Fazey, I., Glass, J., & Laing, A. (2010). What is Social Learning ? Ecology and Society, 15(4).

Richmond, O. P. (2013). Peace formation and local infrastructures for peace. Alternatives, 38(4), 271–287. https://doi.org/10.1177/0304375413512100

Rüttinger, L., Janßen, A., Knupp, C., & Griestop, L. (2014). From conflict to collaboration in natural resource management: A handbook and toolkit for practitioners working in aquatic resource systems.

Souza, D. T., Wals, A. E. J., & Jacobi, P. R. (2019). Learning-based transformations towards sustainability: a relational approach based on Humberto Maturana and Paulo Freire. Environmental Education Research, 25(11), 1605–1619. https://doi.org/10.1080/13504622.2019.1641183

Stirling, A. (2014). Emancipating Transformations: From controlling "the transition" to culturing plural radical progress. www.steps-centre.org/publications

Temper, L., Walter, M., Rodriguez, I., Kothari, A., & Turhan, E. (2018). A perspective on radical transformations to sustainability: resistances, movements, and alternatives. Sustainability Science, 13(3), 747–764. https://doi.org/10.1007/s11625-018-0543-8

Ulrichs, M., Cannon, T., Newsham, A., Naess, L. O., & Marshall, M. (2015). Climate Change & Food Security Vulnerability Assessment: Toolkit for assessing community-level potential for adaptation to climate change.

Ware, A., & Laoutides, C. (2021). Whose analysis? Trial of a new participatory conflict analysis for Do No Harm/conflict-sensitive development planning. Conflict, Security and Development, 21(5), 673–696. https://doi.org/10.1080/14678802.2021.1984682

Wiget, M., Muller, A., & Hilbeck, A. (2020). Main challenges and key features of indicator-based agroecological assessment frameworks in the context of international cooperation. Ecology and Society, 25(3), 1–20. https://doi.org/10.5751/ES-11774-250325

Suggested citation

Medina, L., Ensor, M., Pacillo, G., Hellin, J., Bonatti, M. Community voices on climate, peace and security: a social learning approach. Climate Security Observatory Methods papers series (2023)